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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER	
PROUTY, REBECCA E	

ART UNIT	PAPER NUMBER
1652	

DATE MAILED: 05/05/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/903,410	ROBERTSON ET AL.	
	Examiner	Art Unit	
	Rebecca E. Prouty	1652	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *11 February 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *See Continuation Sheet* is/are pending in the application.

4a) Of the above claim(s) *42-55,61-63,65 and 88-92* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,3-5,16-18,20-23,40,41,67,68,77,78,80-82,85,97-102 and 107-125* is/are rejected.

7)☒ Claim(s) *2* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

Continuation of Disposition of Claims: Claims pending in the application are 1-5,16-18,20-23,40-55,61-63,65,67,68,77,78,80-82,85,88-92,97-102 and 107-125.

A request for continued examination under 37 CFR 1.114 was filed in this application after appeal to the Board of Patent Appeals and Interferences, but prior to a decision on the appeal. Since this application is eligible for continued examination under 37 CFR 1.114 and the fee set forth in 37 CFR 1.17(e) has been timely paid, the appeal has been withdrawn pursuant to 37 CFR 1.114 and prosecution in this application has been reopened pursuant to 37 CFR 1.114. Applicant's submissions filed on 2/11/05 and 5/17/04 have been entered.

Claims 6-15, 19, 24-39, 56-60, 64, 66, 69-76, 79, 83, 84, 86, 87, 93-96 and 103-106 have been canceled. Claims 1-5, 16-18, 20-23, 40-55, 61-63, 65, 67, 68, 77, 78, 80-82, 85, 88-92, 97-102, 107-109 and newly presented claims 110-125 are still at issue and are present for examination.

Applicants' arguments filed on 2/11/05, have been fully considered and are deemed to be persuasive to overcome some of the rejections previously applied. Rejections and/or objections not reiterated from previous office actions are hereby withdrawn.

Claims 42-55, 61-63, 65 and 88-92 remain withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention, there being no allowable generic or linking claim. Applicant timely traversed the

restriction (election) requirement in the response filed 6/2/03. Claims 1-5, 16-18, 20-23, 40-41, 67, 68, 77, 78, 80-82, 85, 97-102, 107-109 and newly presented claims 110-125 are examined herein.

The benefit claim filed on 5/17/04 was not entered because the required reference was not timely filed within the time period set forth in 37 CFR 1.78(a)(2) or (a)(5). If the application is an application filed under 35 U.S.C. 111(a) on or after November 29, 2000, the reference to the prior application must be submitted during the pendency of the application and within the later of four months from the actual filing date of the application or sixteen months from the filing date of the prior application. If the application is a nonprovisional application which entered the national stage from an international application filed on or after November 29, 2000, after compliance with 35 U.S.C. 371, the reference to the prior application must be made during the pendency of the application and within the later of four months from the date on which the national stage commenced under 35 U.S.C. 371(b) or (f) or sixteen months from the filing date of the prior application. See 37 CFR 1.78(a)(2)(ii) and (a)(5)(ii). Applicant previously filed a petition for an unintentionally delayed benefit claim under 37 CFR 1.78(a)(3) or (a)(6). The petition was denied on

5/28/04. As such the benefit claim remains improper and has not been entered. Even if applicants submit a renewed petition, applicant has not complied with one or more conditions for receiving the benefit of an earlier filing date under 35 U.S.C. 120 as follows:

An application in which the benefits of an earlier application are desired must contain a specific reference to the prior application(s) in the first sentence(s) of the specification or in an application data sheet by identifying the prior application by application number (37 CFR 1.78(a)(2) and (a)(5)). If the prior application is a non-provisional application, the specific reference must also include the relationship (i.e., continuation, divisional, or continuation-in-part) between the applications except when the reference is to a prior application of a CPA assigned the same application number. In particular the amendments to the first line of the specification filed 5/17/04 do not specify the relationship of the instant application to 09/382,242 and do not make it clear what application PCT/US97/02039 is a continuation of.

The amendment filed 5/17/04 is objected to under 35 U.S.C. 132(a) because it introduces new matter into the disclosure. 35 U.S.C. 132(a) states that no amendment shall introduce new matter into the disclosure of the invention. The

added material which is not supported by the original disclosure is as follows: the incorporation by reference of PCT/US97/02039.

Applicant is required to cancel the new matter in the reply to this Office Action.

Claims 3 and 5 are objected to because of the following informalities: the recitation of "200 n/ml sheared and denatured salmon sperm DNA" is clearly incorrect as n is not an abbreviation for any known unit of mass. Appropriate correction is required.

Claim 41 is objected to because of the following informalities: SEQ ED NO:36 should be SEQ ID NO:36. Appropriate correction is required.

Claim 77 is objected to because of the following informalities: the inclusion of the double brackets i.e., [[~~76~~ 67]] is incorrect as double brackets in a claim delineate subject matter to be deleted but clearly applicants did not intend 67 to be deleted as then the claim would fail to identify the claim from which it depends. Appropriate correction is required.

Claims 78 and 118-125 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 78 is confusing in the recitation of "The probe of claim 77, which is fully complementary to the nucleic acid sequence" as it is unclear which nucleic acid is referred to by "the nucleic acid". Furthermore, if one assumes that this refers to SEQ ID NO:26, the claim is further unclear as a single sequence cannot be both 95% identical to SEQ ID NO:26 (as is required by Claim 77 from which this claim depends) and fully complementary thereto. As such applicants intent in the additional limitations of this claim are completely unclear and the claim has been considered a duplicate of Claim 77.

Claims 118-125 are indefinite in the recitation of "the oligonucleotide" as this phrase lacks antecedent basis in Claim 97 from which these claims depend. It is presumed that "the nucleic acid" was intended.

Claim 109 is indefinite in the recitation of "functions at extreme temperatures" as "extreme" a relative term which renders the claim indefinite. The term "extreme" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. It is unclear what temperature the esterase must have activity at to be within the scope of this term.

Claims 112 and 120 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claims contain subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

The specification as filed does not provide support for an oligonucleotide at least 45 nucleotides in length.

Claims 107 and 108 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claims contain subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

The specification as filed does not appear to provide support for the limitations of claims 107 and 108. Specifically the specification does not appear to provide support for the esterase activity being limited to "catalysis of a transesterification reaction" or "catalysis of a acidolysis reaction"

Applicants argue that paragraph 3 of the specification which states "A principle example of esterases are the lipases, which are used in the hydrolysis of lipids, acidolysis (replacement of an esterified fatty acid with a free fatty acid) reactions, transesterification (exchange of fatty acids between triglycerides) reactions, and in ester synthesis" provides support for the instant claims. However, this is not persuasive because nothing in the recited passage suggests or implies that applicants intended their invention to be limited to subgenera of esterases having these specific activities.

Claims 1, 3-5, 16-18, 20-23, 40, 41, 67, 68, 77, 78, 80-82, 85, 97-102 and 107-125 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Claims 1, 22, 40 and 107-109 are directed to polynucleotides having 90% sequence identity to SEQ ID NO:26 and encoding a polypeptide with an esterase activity or vectors and host cells comprising said nucleic acids or methods of expressing said nucleic acids. The specification does not contain any disclosure of the function of all polynucleotides

within the scope of the genus of Claims 1, 22, 40 and 107-109. The genus of nucleic acids that comprise these above nucleic acids is a large variable genus with the potentiality of encoding many different proteins. While the instant claims are limited to polynucleotides encoding polypeptides with esterase activity, there are a wide variety of functions encompassed within the term "esterase activity". Ester bonds are present in an enormous number of different chemical compounds and enzymes which will cleave one type of ester bond will not cleave all ester bonds. Therefore, many functionally unrelated nucleic acids are encompassed within the scope of these claims. The specification discloses only a single species of the claimed genus which is insufficient to put one of skill in the art in possession of the attributes and features of all species within the claimed genus. Therefore, one skilled in the art cannot reasonably conclude that the applicant had possession of the claimed invention at the time the instant application was filed.

Claims 3-5, 16-18, 20, 21, 23, 41, 67, 68, 77, 78, 80-82, 85, 97-102 and 110-125 are directed to polynucleotides encoding fragments and/or variants of polynucleotides having 90% sequence identity to SEQ ID NO:26 and encoding a polypeptide with an esterase activity or vectors and host cells comprising said nucleic acids or methods of expressing said nucleic acids.

Claims 3-5, 16-18, 20, 21, 23, 41, 67, 68, 77, 78, 80-82, 85, 97-102 and 110-125 are rejected under this section of 35 USC 112 because the claims are directed to a genus of polynucleotides that have not been disclosed in the specification. No description has been provided of the structure and function of the modified polynucleotide sequences encompassed by the claims. No information, beyond the characterization of SEQ ID NO:26 which encodes the esterase of SEQ ID NO:36 has been provided by applicants which would indicate that they had possession of the claimed genus of modified polynucleotides. The specification does not contain any disclosure of the structure and function of all the polynucleotide sequences derived from SEQ ID NO:26, including fragments and variants within the scope of the claimed genera. The genera of polynucleotides claimed is a large variable genus including polynucleotides which can have a wide variety of functions for the same reasons as discussed above with regard to Claims 1, 22, 40, and 107-109 as well as an enormous number of different structures in view of the limited nature of the structural limitations of the instant claims. The specification discloses only a single species of the claimed genus which is insufficient to put one of skill in the art in possession of the attributes and features of all species within the claimed genus. Therefore, one skilled in the art cannot

reasonably conclude that applicant had possession of the claimed invention at the time the instant application was filed.

Applicant is referred to the revised guidelines concerning compliance with the written description requirement of U.S.C. 112, first paragraph, published in the Official Gazette and also available at www.uspto.gov.

Applicants argue that the esterase activity as currently claims is sufficiently specific to meet the requirements of 35 U.S.C. 112, first paragraph as esterase activity is a very specific activity, i.e., the hydrolysis or synthesis of an ester. As such applicants argue that there is no diversity in this most basic chemical reaction. This is not persuasive because all esterases do not cleave (or synthesize) all ester bonds and the properties of the enzymes vary according to the type of ester bond they cleave (or synthesize). Clearly lipases, nucleases and sulfatases are all very different enzymes with very different properties and uses yet all are esterases. In order to know how the use an esterase a skilled artisan needs to know what types of esters it can cleave (or synthesize). While the polynucleotide of SEQ ID NO:26 might be considered to be representative of the genus of polynucleotides having at least 90% identity thereto and encoding an esterase which cleaves the same esters as SEQ ID NO:36 (the identity of which

are somewhat ambiguous from the specification as it is not entirely clear therefrom whether SEQ ID NO:36 exhibited activity with either or both of the short chain or long chain substrate mixes) it is clearly not representative of the genus of polynucleotides claimed which can have any of an enormous diversity of activities.

Applicants further argue (presumably with regard to the genera of Claims 3-5, 16-18, 20, 21, 23, 41, 67, 68, 77, 78, 80-82, 85, 97-102 and 110-125) that sufficient structural limitations are provided for the claimed compositions as the specification discloses the full sequence of each nucleic acid claimed and the claimed genera is limited to polynucleotides having at least 90% sequence identity [to SEQ ID NO:26] that encode a polypeptide with an esterase activity. Applicants argue that a person of ordinary skill in the art would recognize the inventors had possession of this genera at the time of filing and have sufficient guidance to make and use the claimed compositions with the guidance provided. This is not persuasive because except for Claims 1, 22, 40, and 107-109 which are expressly addressed above it is simply not true. Claims 3-5, 16-18, 20, 21, 23, 41, 67, 68, 77, 78, 80-82, 85, 97-102 and 110-125 are **not limited to polynucleotides having at least 90% sequence identity [to SEQ ID NO:26] that encode a polypeptide**

with an esterase activity. These claims all encompass variants and fragments of this genus of polynucleotides. As such the genera of these claims is vastly broader than that characterized by applicants. The examiner has repeatedly explained why the disclosed species are not representative of the claimed genera in either structure or function.

Claims 1, 3-5, 16-18, 20-23, 40, 41, 67, 68, 77, 78, 80-82, 85, 97-102 and 107-125 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for polynucleotides encoding SEQ ID NO:36, does not reasonably provide enablement for any polynucleotide having at least 90% sequence identity to SEQ ID NO:26 and encoding a polypeptide with any esterase activity or any polynucleotide comprising at least 30 bases of a sequence having 90% identity to SEQ ID NO:26 and encoding a polypeptide having esterase activity, or any polynucleotide comprising a fragment of SEQ ID NO:26 or encoding fragments of SEQ ID NO:36, or all fragments and variants thereof or vectors and host cells comprising said nucleic acids. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the invention commensurate in scope with these claims.

Claims 1, 22, 40 and 107-109 are directed to polynucleotides having 90% sequence identity to SEQ ID NO:26 and encoding a polypeptide with an esterase activity or vectors and host cells comprising said nucleic acids or methods of expressing said nucleic acids. Claims 3-5, 16-18, 20, 21, 23, 41, 67, 68, 77, 78, 80-82, 85, 97-102 and 110-125 are directed to polynucleotides encoding fragments and/or variants of polynucleotides having 90% sequence identity to SEQ ID NO:26 and encoding a polypeptide with an esterase activity or vectors and host cells comprising said nucleic acids or methods of expressing said nucleic acids. The scope of the claims is not commensurate with the enablement provided by the disclosure with regard to the extremely large number of polynucleotides encoding esterases and variants and fragments thereof broadly encompassed by the claims. Since the amino acid sequence of a protein determines its structural and functional properties, predictability of which changes can be tolerated in a protein's amino acid sequence and obtain the desired activity requires a knowledge of and guidance with regard to which amino acids in the protein's sequence, if any, are tolerant of modification and which are conserved (i.e. expectedly intolerant to modification), and detailed knowledge of the ways in which the proteins' structure relates to its function. However, in this

case the disclosure is limited to the polynucleotide of SEQ ID NO:26 which encodes the esterase of SEQ ID NOS 36.

While recombinant and mutagenesis techniques are known, it is not routine in the art to screen for multiple substitutions or multiple modifications, as encompassed by the instant claims, and the positions within a protein's sequence where amino acid modifications can be made with a reasonable expectation of success in obtaining the desired activity/utility are limited in any protein and the result of such modifications is unpredictable. In addition, one skilled in the art would expect any tolerance to modification for a given protein to diminish with each further and additional modification, e.g. multiple substitutions.

The specification does not support the broad scope of the claims which encompass an enormous number of polynucleotide fragments and variants of the polynucleotide of SEQ ID NO:26 because the specification does **not** establish: (A) regions of the protein structure which may be modified without effecting esterase activity; (B) the general tolerance of esterases to modification and extent of such tolerance; (C) a rational and predictable scheme for modifying any amino acid residues with an expectation of obtaining the desired biological function; and (D) the specification provides insufficient guidance as to which

of the essentially infinite possible choices is likely to be successful.

Thus, applicants have not provided sufficient guidance to enable one of ordinary skill in the art to make and use the claimed invention in a manner reasonably correlated with the scope of the claims broadly including an enormous number of polynucleotide fragments and variants of the polynucleotide of SEQ ID NO:26. The scope of the claims must bear a reasonable correlation with the scope of enablement (In re Fisher, 166 USPQ 19 24 (CCPA 1970)). Without sufficient guidance, determination of polynucleotides having the desired biological characteristics is unpredictable and the experimentation left to those skilled in the art is unnecessarily, and improperly, extensive and undue. See In re Wands 858 F.2d 731, 8 USPQ2nd 1400 (Fed. Cir, 1988).

Applicants argue that the specification discloses the manner and process of making and using the claimed nucleic acids with esterase activity in terms which correspond in scope to those used in describing and defining the subject matter sought to be patented and that, unless there is a reason to doubt the objective truth of the statements contained within the specification as filed, it fulfills the requirements for reasonable enablement. This is not persuasive because the

examiner has provided ample reasons to doubt the objective truth of applicants statements that a skilled artisan would know how to make and use the full scope of the claimed invention. As has been stated several times, applicants claims are of enormous scope encompassing a vast number of species, the specification teaches only a single working example, the art is highly unpredictable and the specification provides only very limited guidance for a skilled artisan which is clearly insufficient to enable the entire scope of the claimed subject matter. Looking first only at claims 1, 22, 40 and 107-109 which are the most narrow of applicants claims which are rejected. These claims are directed to polynucleotides having 90% sequence identity to SEQ ID NO:26 and encoding a polypeptide with an esterase activity or vectors, host cells and methods of expressing such polynucleotides. The polynucleotide of SEQ ID NO:26 is 756 nucleotides in length. Considering only polynucleotides of the identical length, the limitation to having 90% identity to SEQ ID NO:26 therefore encompasses any polynucleotide having up to 75 nucleotide substitutions within the sequence. Therefore, this structural limitation encompasses over 10^{100} different sequences. However, only a very small percentage of these sequences will meet the functional limitation of these claims, i.e., encode a protein having esterase activity. As the

polynucleotide sequence can have up to 75 nucleotides altered, the encoded protein sequence can have up to 75 amino acids (out of 251 total in SEQ ID NO:36) altered. This corresponds to encoding a protein having at least 70% identity to SEQ ID NO:36. Guo et al. (PNAS 101(25): 9205-9210, 22 June 2004) teach that the percentage of random single substitution mutations which inactivate a protein for the protein 3-methyladenine DNA glycosylase is 34% and that this number appears to be consistent with other studies in other proteins as well. Guo et al. further show in Table 1 that the percentage of active mutants for multiple mutants appears to be exponentially related to this by the simple formula $(.66)^x$ X 100% where x is the number of mutations introduced. Applying this estimate to the instant situation, applicants claims allow up to 75 mutations within the 251 amino acids of SEQ ID NO:36 and thus only $(.66)^{75}$ X 100% or 2.9×10^{-12}% (i.e., approximately 1 in 34 trillion) random mutants having 75 substitutions would be active. Note however, that despite the very low percentage of active variants the actual number of active variants encompassed (i.e., 2.9×10^{-12}% of $10^{100} = 2.9 \times 10^{87}$) is still enormous. Current techniques in the art (i.e., high throughput mutagenesis and screening techniques) as are discussed in the declaration of Dr. Short would allow for finding a few active mutants within several

hundred thousand or up to about a million inactive mutants (despite even this being an enormous quantity of experimentation that would take a very long time to accomplish) but finding a few mutants within several trillion or more as in the current claims would not be possible and clearly would constitute undue experimentation. The remaining claims are even broader than Claims 1, 22, 40 and 107-109 and completely lack any functional limitations. While lack of a functional limitation would allow a skilled artisan to easily know how to make any polynucleotide within the scope of these claims, these claims clearly suffer from a lack of enablement of how to use the entire scope of the claimed polynucleotides. The genera of all of these claims is infinite in size (in view of the use of comprising language) and the limitations on structure require only very small regions of similarity to the polynucleotide of SEQ ID NO:26. The specification teaches a variety of uses of such polynucleotides including the production of esterase proteins, or as probes or primers for the detection or production of esterase genes. However, none of these uses will be found in all or even most of the claimed polynucleotides and thus the claims are not commensurate in scope with the enablement provided. As such the rejection of these claims is maintained as well.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless -
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 3, 5, 82, 107, 108, 110-112, 114-120, and 122-125 rejected under 35 U.S.C. 102(b) as being anticipated by Robertson et al. (WO 97/30160).

Robertson et al. teach the gene of SEQ ID NO:26 and fragments thereof useful as probes. Thus Robertson et al. anticipates all of the instant claims. It is noted that Robertson et al. was published after the filing date of grandparent application 08/602,359. However the grandparent application does not provide support for the instant claims. In particular, the grandparent application does not provide support for the hybridization conditions recited in claims 3 and 5, the oligonucleotide lengths recited in claims 82, 110-112, 114-120, and 122-125 or for the recitation of encoding an esterase which catalyzes a transesterification reaction or acidolysis reaction in claims 107 and 108. As such the instant claims have not been granted the benefit of the filing date of the grandparent application and Robertson et al. anticipates the instant claims.

Applicants traverse this rejection by asserting that the grandparent application provides support for all of the current claims but does not specifically point out where in the grandparent application support for all of the limitations of the current claims is found. As support for each of the instantly rejected claims can not be found in the grandparent application by the examiner this rejection is maintained. If applicants traverse they should point out specifically where in the grandparent application support for these limitations is found.

Claim 2 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rebecca E. Prouty whose telephone number is 571-272-0937. The examiner can normally be reached on Tuesday-Friday from 8 AM to 5 PM. The examiner can also be reached on alternate Mondays

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ponnathapura Achutamurthy, can be reached at (571) 272-0928. The fax phone number for this Group is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system,

see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Rebecca Prouty
Primary Examiner
Art Unit 1652